ATTACHMENT 2

UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

IN RE: DA VINCI SURGICAL ROBOT ANTITRUST LITIGATION	LEAD CASE NO.: 3:21-cv-03825-VC
AND RELATED CASES.	

VIDEOTAPED ZOOM DEPOSITION OF DR. EUGENE RUBACH

March 8, 2023

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JOB NO.: 5783240

REPORTED BY: MICHELLE MEDEL SABADO, RPR, CRR, CSR #7423

VIDEOTAPED ZOOM DEPOSITION OF DR. EUGENE RUBACH, TAKEN ON BEHALF OF DEFENDANT, COMMENCING AT 1:01 P.M., WEDNESDAY, MARCH 8, 2023, AT EAST HILLS, NEW YORK, BEFORE MICHELLE MEDEL SABADO, RPR, CRR, CSR #7423.

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(ALL PARTIES APPEARING REMOTELY)

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Also Present:
TONY NOKES - THE VIDEOGRAPHER

A Approximately two years ago. 01:32

Q When you became vice chairman of surgery at St. Francis Hospital, did you take on administrative responsibilities?

A Yes. 01:32

Q Generally, can you describe the administrative responsibilities that you undertook at St. Francis Hospital?

A They're involved with quality improvement projects as related to the ICU. Some improvements to the 01:32 use of the electronic medical record that we have in our hospital. Significant involvement with a cancer program where I serve as a cancer liaison physician. Some other scheduling responsibilities.

Q Does -- do your responsibilities as a vice 01:33 chair at St. Francis include any recruitment of physicians?

A No.

Q Do you have any administrative responsibilities at St. Francis which requires you to 01:33 consider matters that refer particularly to the da Vinci Surgical System?

A Not specifically unless such matters come up in the course of -- of operations of the hospital.

Q Does St. Francis have a da Vinci Surgical 01:34

If you and your counsel want to take breaks less frequently after this next break, tell me that and I'll try to accommodate you but I don't like -- for sure, I don't like to ask the people who are working to keep the record to go more than an hour and 15 or 20 minutes without a break. I don't think that's right. With that in mind, please, when we -- we take a break in about ten minutes and if you could add that to the agenda. 01:50 01:50

Is that all right, Jeff?

MR. CORRIGAN: Yes, sure. Yes. 01:50

MR. RUBY: All right.

Q Do you consider yourself an expert in the business considerations that may or may not apply to the sales and marketing and utilization of the da Vinci Surgical System? 01:51

MR. CORRIGAN: Object to the form.

THE WITNESS: I do not know exactly what the marketing expert for da Vinci would be but I consider myself an expert in the use of da Vinci Surgical Systems as it pertains to the market of surgeries. 01:51

BY MR. RUBY:

Q Now when you say the "market of surgeries," what -- what market is that?

A That is the clinical application of surgical technologies to solve surgical diseases, to cure surgical 01:52

Q In the course of our deposition today, if you find yourself recognizing an opinion in addition to paragraphs nine, ten, 11 or 12, will you tell me? 02:50

A I will do my absolute best.

Q Now paragraph 9 says -- and I'm just going to read it into the record. "U.S. hospitals that do not have a da Vinci robot find themselves at a great disadvantage in, A, attracting well qualified surgeons who practice minimally invasive surgery and B, trying to appeal to patients seeking minimally invasive surgical treatments." 02:51

We agree that that's what it says? Yes?

A Yes, that's what it says.

Q All right. What are the facts which underlie the opinion that is expressed in paragraph 9? 02:51

A So several facts. First of all, I've been sort of in the surgical world for close to 25 years now, so I interact with a lot of people. I have been recruited. I've been approached by recruiters on many occasions for -- with job offers. I have recently in my practice hired a new surgeon and I made that statement based on my personal experience and interactions with many surgeons, going to conferences and sort of seeing how the surgical world, especially the world of minimally invasive surgery that I live has developed and continues 02:52

to develop.

And I can tell you that our last most recent recruit who joined our practice just a few weeks ago basically does everything robotically and it would be very hard for us to attract a talented young surgeon, well trained surgeon at one of the most premiere surgical institutions, it would be impossible for us to attract into our hospital if he was -- if we didn't have a robot. That would literally be responsible.

Now when we bring a person with such a unique minimally invasive training and expertise to our hospital, our hospital is now able to provide services which we were not able to provide before. So now I live in Long Island, New York where they have a lot of really he had indicated people who, when they have a medical problem other than an absolute life threatening emergency, they spend a lot of times researching their option. When the patients often come in to see me, they already know of the medical options or treatment options and the only way I could attract these people to my practice is if I offer all those options because if I do not, they will go someplace else. They will go to a place that offers those options, so that i s-- those are the facts and the realities on which I base that opinion.

Q Well, is it your -- strike that.

you including both robotic and non-robotic techniques of surgery? 02:59

A Yes. We established that minimally invasive surgery include both robotic and non-robotic approaches.

Q Okay. Well, you are an -- strike that. 02:59

Do you consider yourself an expert in the economics of minimally invasive surgery?

A I do not generally consider myself an expert in economics but I do consider myself an expert in the clinical applications of minimally invasive surgery. 03:00

Some of it involves economics. I'm aware of the costs, for example, of the equipment that they use and the materials that they use or the operations they perform.

Q Are you appointed as -- strike that.

Do you consider yourself an expert in the costs of minimally invasive surgery? 03:00

A Again, I am aware of the cost of minimally invasive surgery and I understand how it affects the clinical applications of it.

Q Okay. Do surgeons who provide minimally invasive surgery, are they paid for their surgical efforts? 03:00

MR. CORRIGAN: Object to form.

THE WITNESS: Generally, yes.

/// 03:01

hospital, as the hospital that cares for the patients, as the hospital that is likely to provide other high end, high quality services. And with that perception, it increases the referrals. This is actually a term that was taught to me by the Intuitive Surgical reps who were very keen on selling our hospital the robot. That was one of their sales pitches. 04:17 04:17

Q Are what you called sales pitches the factual basis for what you say here in paragraphs 23 and 24?

A You know, not only is it a factual basis for the halo effect. The opposite is now true. I don't know if you want to call it the black hole effect but if the hospital does not have a surgical robot, they're certainly perceived -- perceived as an outlier to the point that at the rate right now, not having surgical -- having a surgical robot is almost expected because that means that you're providing a certain degree of minimally invasive surgical treatment. Not having it means that you are stuck in a 20th Century. 04:17 04:17

Q And what is the source of the -- the allegedly factual source of that opinion? 04:18

A The term itself, as I mentioned to you, came from Intuitive Surgical reps. The -- the factual source of it is my experience of living in the world of surgery that I've been referring to for the last two decades, 04:18

interacting with my colleagues, going to conferences, reading articles, speaking to people, just generally being part of the world of surgery and particularly minimally invasive surgery. 04:18

Q But what -- what is the halo effect? Is it -- strike that. Withdraw that. 04:18

Is the halo effect different from community and physician perceptions?

A Halo effect is a part of it. So what happens is you have this halo where it is -- it's a glowing hospital. It's -- it's fantastic. Everything is new. Everything is modern. People who work there are well qualified, well trained and they offer the most advanced new minimally invasive techniques. That attracts people. That attracts referring doctors. That attracts patients. That creates a good vibe. 04:19 04:19

Q But can you give me an example of something, another type of medical device other than a surgical robot that creates what you call the halo effect?

A Yeah, I would imagine that having a cyberknife would be a similar device. 04:19

(A pause in the proceedings.)

BY MR. RUBY:

Q Instruments for minimally invasive surgery which is not robotic surgery are made out of what kind or 04:20

use the term? 04:22

A There are many barriers through which somebody has to jump or over, which somebody has to jump to bring a new product to the market. They involve safety studies, clinical trials, comparisons to the 04:22 existing instruments and costs and all these things have to play out in such a way so that a new instrument or a new device will be brought to the market.

Q Is it your testimony that a new device for minimally invasive surgery apart from robotic instruments 04:22 requires regulatory approval to be brought to market?

A So --

MR. CORRIGAN: Object to form.

THE WITNESS: I'm not an expert in regulatory approvals and I will tell you that I have learned a lot 04:23 about it just reading through the documents of this particular lawsuit. It appears that there are many classes of devices, each one of which requires different regulatory approvals and I'm by no means an expert to determine which device requires what kind of approval 04:23 before it can be brought to the market.

BY MR. RUBY:

Q Well, today as you sit here, are you convinced of the truth of the paragraph 17 which you wrote and attested to? 04:23

companies. 04:28

Q One of your opinions is that Intuitive -- I'm quoting from paragraph 12. You're welcome to turn to it, if you'd like. It's up to you. "Intuitive disables EndoWrist instruments based on criteria which in my 04:28 opinion as a surgeon are arbitrary and do not reflect whether an EndoWrist is suitable for clinical use."

Do you see that?

A Yes.

Q What criteria did you refer to? 04:29

A The only criterion by which the Intuitive Surgical disables EndoWrist instruments is how many times it was inserted into a patient while connected to a robotic arm.

Q And you thought that was arbitrary; is that 04:29 right?

A It is my opinion this is arbitrary.

Q Now this is your opinion as a surgeon; is that right?

A That's what I am, yes. 04:29

Q You're not an engineer; is that true?

A That is correct. I'm not an engineer.

Q Do you know anything about material science?

A I know very little about material science.

Q Do you know about durability? 04:29

MR. CORRIGAN: Object to the form. 04:30

MR. RUBY: I - I wasn't quite finished but --

MR. CORRIGAN: I'm sorry.

MR. RUBY: -- let me start over again.

Q Do you know anything about durability of da Vinci instruments? 04:30

MR. CORRIGAN: Object to the form.

THE WITNESS: I cannot comment about the physical properties of durability of surgical instruments or da Vinci instruments but I can comment on their suitability for clinical use and durability to perform its intended task. And this is where I have a big problem with this arbitrary criteria to stop using because the same instrument can be subjected to a lot of very intense use and can be subjected to very little use. But the instrument counter does not differentiate between those two events. If instrument counter was based on the actual use, it would be a completely different story. 04:30

BY MR. RUBY:

Q So you are not opposed -- well, strike that. 04:31

Are you opposed to the use of a usage limitation feature on a minimally invasive surgery instrument or are you only opposed to the -- the way that you think that da Vinci -- that Intuitive has implemented the feature? 04:31

MR. CORRIGAN: Object to the form. 04:31

THE WITNESS: I am not opposed to anything. What I'm trying to opine on is the fact that EndoWrist instruments are disabled based on the arbitrary parameter that has nothing to do with their clinical usability. 04:31

BY MR. RUBY:

Q And how do you know it has nothing to do with clinical usability?

A Because I have used instruments that were within the parameters established by Intuitive Surgical 04:32 and they failed, despite the fact that they were used less than ten times and I have seen instruments that were barely used over the ten procedures and likely could have been used again except it's impossible to test or to even know about it without doing something to them because the 04:32 counter prevents these instruments from being used.

Q Do you, in your first report, express any opinion as to the safety of EndoWrist instruments which have been remanufactured according to the -- what you referred to as a repair process that you heard about? 04:33

MR. CORRIGAN: Object to the form.

THE WITNESS: I have never used a remanufactured EndoWrist instrument. I have used instruments in training whose use counter was disabled.

/// 04:33

BY MR. RUBY: 04:33

Q Now would you answer my question, please.

A I feel that's answer to your question.

Q Okay. Try -- try it again.

A Okay. 04:33

Q Did you mean in your first report to express an opinion as to the effectiveness? It's not a word I used last time so I'll try to clarify this. Have you expressed -- meant to express any opinion as to the effectiveness of the remanufacturing that has been 04:33 offered by some of the vendors who are referred to by the -- the hospitals?

MR. CORRIGAN: Object to the form.

THE WITNESS: The answer to your question is that without having personal experience, it's very hard for me 04:34 to comment on their effectiveness. However, I have no reason to suspect the effectiveness of these remanufactured instruments would be any different from the effectiveness of many other remanufactured and repaired instruments that are routinely used in open and 04:34 laparoscopic surgery.

BY MR. RUBY:

Q That's your opinion?

A That is my opinion.

Q As an expert? 04:34

A Was that a question? 04:34
Q Is that your expert opinion?
A Yes, that is my expert opinion.
Q Which is -- can you point that out to me, please, in the -- your first report so I can read it and 04:34
make sure I've got it just right?
A No, I -- you -- you just asked me for an opinion about the remanufactured instruments and I told you I cannot have a personal opinion about it because I've never used them myself. However, I have no reason 04:35
to suspect that these instruments would be working any differently from other remanufactured instruments that I use commonly in laparoscopic and open surgery.
Q Do you have any training or education in the area of defining an antitrust market for a manufactured 04:36
product?
A No.
Q Do you have any education or training in the discipline of economics?
A Not -- 04:36
MR. CORRIGAN: Objection.
THE WITNESS: Not beyond a college course.
BY MR. RUBY:
Q Pardon me?
A Nothing beyond a college course. 04:36

Q Okay. An undergraduate course? 04:36
A Yes.
Q Econ one?
A I don't remember what it was called.
Q Have you ever used what was called the Zeus, 04:37
Z-E-U-S, robot?
A No, I have not.
Q Have you ever seen it in operation?
A Yes.
Q Tell me the circumstances, please. 04:37
A I don't remember the circumstances. It was
at one of the hospitals where I was for whatever reason.
Probably the most common experience -- like the -- the
most vivid experience was this sort of famous event in
surgical history where the very first transatlantic 04:38
surgery was performed with a Zeus robot. It has a name.
I want to say the Guttenberg operation and it was in
early 2000's and it was a unique experience where a
surgeon was actually in America and the patient was
actually in France and the surgeon operated on a patient 04:38
using a Zeus robot.
Q Did you witness that event on film or in a
movie or live for that matter?
A On film, on film.
Q And is that the basis for any opinions you 04:38

express about the Zeus in -- in your report? 04:38

A No, I -- my -- my experience with minimally invasive and robotic surgery goes back so far that when we were shopping for the first surgical robot for our hospital, there were actually two companies on the market 04:39 and I'm familiar with the products from both and then I'm aware of the fact that at some point, one of the manufacturers bought the second one and essentially phased out the product. But as I mentioned, I've been in this world for so long actually, it actually goes back to 04:39 the time where Zeus was one of the market players.

Q Did you do any research or investigation into the efficacy and functioning of the Zeus robot?

MR. CORRIGAN: Object to the form.

THE WITNESS: I don't know if I've done any formal 04:39 research but I've certainly investigated the pros and cons and I will be honest with you, the details of those investigations escape me because they were from decades ago but at some point we were shopping around for -- between Zeus and the da Vinci robot. 04:40

BY MR. RUBY:

Q What can you tell me, if anything, about the Zeus robot and its capacity to process information about haptic, H-A-P-T-I-C, feedback?

A Yes, so from my recollection, Zeus robot 04:40

Q In person? Over some electronic means? How did you see it in operation? 05:00

A I've seen it at one of the hospitals where I was and I'm trying to remember. You asked me that earlier. I don't remember exactly which hospitals and I've seen it in the videos that I told you, the video that I was referring to earlier. 05:00

Q The last sentence of this paragraph 22 begins "this has been a disappointing shortcoming."

Do you see that? 05:00

A Yes.

Q And -- and what is the source of that allegation?

A My many conversations with surgeons like myself and furthermore, it has been a big sticking point in the beginning of my experience with da Vinci robotic surgery because it is a very unusual tactile sensation to operate without haptic feedback and the instructors who teach you how to use it, actually tell you when you tie a knot for example and you look at the suture, you want to see how the fluid is squeezed from that suture when you're tightening it because you can't feel the tension you're -- you're -- you're exerting on the thread. It's very easy to break it. So you have to compensate by other modalities and that is -- it's an accepted 05:00 05:01 05:01

criticism and accepted shortcoming of the device and they teach you -- actually teach you specific skills on how to overcome it. 05:01

Q But this is something somebody told you?

A That's something I experienced myself. 05:01

Q Well, if you look at the sentence at the end of paragraph 22 it ends, "It's been a source of widespread criticism by surgeons who use the da Vinci."

Do you see that?

A Yes. 05:02

Q So surgeons complained to you about this?

A I've spoken to many people about it.

Q Would you look, please, in your first report, at paragraph 35.

A Allow me to read it, please. 05:02

(Document reviewed by the witness.)

THE WITNESS: Yes, I read it.

BY MR. RUBY:

Q You say in the first sentence, "There's no reason to treat EndoWrist instruments differently than their laparoscopic counterparts." 05:03

Do you see that?

A Yes.

Q And that's your opinion, right?

A Yes. 05:03

Q And is the basis for -- is the entire basis for your opinion in this regard set out in paragraph 35? 05:03

A I have used many logical points in this report and my other report that support this opinion.

Q Well, the -- the principal point you -- you have made or tried to make is that the da Vinci EndoWrist -- excuse me, the EndoWrist instruments are no different than their lap -- laparoscopic counterparts, if there are any, right? 05:03

A There are -- 05:04

MR. CORRIGAN: Object to the form.

THE WITNESS: What I would like to say is that EndoWrist instruments are structurally and functionally similar to their laparoscopic counterparts. Thus, I do not see any reason why they should be treated differently. 05:04

BY MR. RUBY:

Q Then on the one, two, three, fourth line, you -- you talk about -- strike that.

On the fourth line of this paragraph 35, you -- you say, "And if appropriate, tuned up and returned to use." 05:04

Do you see that?

A Yes.

Q Is "tuned up" a medical term? 05:04

A No. The tune up would mean that the instrument is inspected, assessed on what is wrong with it and, if appropriate, repaired and returned to its previous functional status. 05:06

Q Well, does a tune up, as you use the term, embrace the replacement of a broken or missing part? 05:06

A If it's so required but I'm not an engineer to opine on how to repair instruments.

Q Have you ever read any submissions made by Intuitive to the FDA in respect to the usage limitation? 05:06

MR. CORRIGAN: Object to the form.

THE WITNESS: I have read references to those submissions.

BY MR. RUBY:

Q But now the question I asked is, have you ever read any admissions -- any submissions from Intuitive to the FDA in respect to the usage limitation? 05:07

A The answer to the question is, I have read quotes from those submissions. I have not personally verified the accuracy of those quotes. 05:07

Q And -- and in what document or documents did those quotes that you read appear?

A Some of the documents provided to me in preparation was a report from a consultant whose last name is, I believe, Troutman who is -- who opined on the 05:07

necessity of obtaining FDA clearance for reprocessing EndoWrist instruments and in it, she quoted some of the data submitted by Intuitive Surgical to FDA to validate the use limits. 05:07

Q And did you assume that what you read from this consultant was accurate such that it formed a basis for any opinions you've expressed today? 05:08

A It did not form the basis for my opinions today. You asked me if I ever read Intuitive Surgical submissions and the answer is yes, I have but not directly. 05:08

Q Did you -- did you ever have a research grant from Johnson & Johnson?

A I do not recall having a research grant from Johnson & Johnson. 05:08

MR. RUBY: Could we mark 263, please.

(Whereupon Defendant's Exhibit 262 was marked for identification by the Court Reporter.)

MR. RUBY: Could we mark 263, please. 05:10

MS. AZHAR: It should populate on your end now.

(A pause in the proceedings.)

BY MR. RUBY:

Q This is the one we're looking at. Has that come up on your screen yet? 05:11

I, THE UNDERSIGNED, DO HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT I HAVE READ THE FOREGOING TRANSCRIPT; THAT I HAVE MADE ANY CORRECTIONS AS APPEAR NOTED, IN INK, INITIALED BY ME, OR ATTACHED HERETO; THAT MY TESTIMONY AS CONTAINED HEREIN, AS CORRECTED, IS TRUE AND CORRECT.

EXECUTED THIS _____ DAY OF _____,
2023, AT _____, _____.
(CITY) (STATE)

_____

DR. EUGENE RUBACH

I, MICHELLE MEDEL SABADO, RPR, CRR, CSR NO. 7423, IN AND FOR THE STATE OF CALIFORNIA, HEREBY CERTIFY:

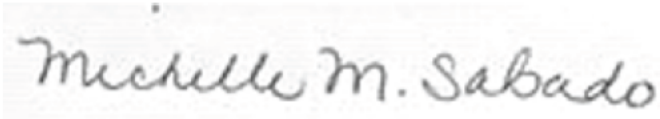
THAT PRIOR TO BEING EXAMINED, THE WITNESS NAMED IN THE FOREGOING DEPOSITION WAS DULY SWORN BY ME TO TESTIFY THE TRUTH, THE WHOLE TRUTH, AND NOTHING BUT THE TRUTH;

THAT SAID DEPOSITION WAS TAKEN DOWN BY ME IN SHORTHAND AT THE TIME AND PLACE THEREIN NAMED, AND THEREAFTER REDUCED TO TYPEWRITING UNDER MY DIRECTION, AND THE SAME IS A TRUE, CORRECT AND COMPLETE TRANSCRIPT OF SAID PROCEEDINGS;

THAT IF THE FOREGOING PERTAINS TO THE ORIGINAL TRANSCRIPT OF AN EXAMINATION IN A FEDERAL CASE, BEFORE COMPLETION OF THE PROCEEDINGS, REVIEW OF THE TRANSCRIPT { } WAS { } WAS NOT REQUIRED.

I FURTHER CERTIFY THAT I AM NOT INTERESTED IN THE EVENT OF THE ACTION.

WITNESS MY HAND THIS 10TH DAY OF MARCH, 2023.



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